

COMMENT ON REVISED PROPOSALS CONCERNING *CORNUFER UNICOLOR* TSCHUDI, 1838 (AMPHIBIA, SALIENTIA). Z.N.(S.) 1749

By M. J. Tyler (*Department of Zoology, University of Adelaide, Adelaide, South Australia*)

The Secretary of the Commission has drawn attention (Melville, 1975, *Bull. Zool. Nomencl.* 32 : 52) to three reasons for seeking a reconsideration by the Commission of Zweifel's apparently unsuccessful request (1966, *Bull.* 23 : 127-8) that the Commission suppress the generic name *Cornufer* Tschudi, 1838 and the specific name *unicolor* Tschudi, 1838, as published in the binomen *Cornufer unicolor*. I wish to supplement evidence in Zweifel's 1974 communication to the Secretary (Melville, *Bull.* 32 : 53), and to provide renewed support for Zweifel's opinion that *Cornufer* Tschudi, 1838 is a senior synonym of *Platymantis* Guenther, 1858.

The counter-proposal by Darlington, Inger, Mayr and Williams (1967, *Bull.* 24 : 192) seeking to maintain *Cornufer* without invalidating *Platymantis* can now be viewed with the most unusual advantage of eight years of hindsight. In October 1974 Zweifel provided the Commission with a list of 13 papers published from 1968 to that date. In each paper *Platymantis* was used exclusively to embrace species previously referred variously to *Cornufer* and to *Platymantis*. The total is in reality a good deal higher; an additional seven papers need to be noted:

Ewers, 1968 *J. Parasitol.* 54 : 172-174

(*Platymantis* the host of various parasites)

Ewers, 1973 *Int. Jl. Parasitol.* 3 : 89-110

(nematode parasites of *Platymantis* listed)

Liem, 1970 *Fieldiana Zool.* 57 : 1-145

(11 species of *Platymantis* used in systematic study)

Lynch, 1973, in *Evolutionary Biology of the Anurans*, pp. 133-182 (occasional references to *Platymantis* in a review of anuran systematics)

Salthe and Duellman, 1973, in *Evolutionary Biology of the Anurans*, pp. 229-249 (references to *Platymantis* as example of genus with direct development)

Tyler, 1971 *Univ. Kansas Publ. Mus. Nat. Hist.* 19 : 319-360 (*Platymantis* among genera examined in a study of muscle divergence)

Tyler, 1971 *Herpetologica* 27 : 150-152

(7 species of *Platymantis* included as subjects of survey of muscle in Anura).

In effect the 17 authors listed above or by Zweifel have indicated the need to recognise only one genus, and no contrary opinion has been expressed. If the Commission now designates under its plenary powers a type-species for *Cornufer* that will permit *Cornufer* to be used as a valid name distinct from *Platymantis*, it will be virtually resurrecting *Cornufer*. This situation did not exist on the date of Zweifel's application 9 years ago.

Eight years have negated a portion of the 1967 counter-proposal of Darlington *et al.*, which in 1975 can be viewed as no more than an insurance policy against a dubious contingency. I wholly support Zweifel's contention that the available data are insufficient to merit the recognition of more than one genus.

SPHAERIIDAE IN INSECTA AND MOLLUSCA: COMMENTS ON THE SECRETARY'S REVISED PROPOSALS. Z.N.(S.) 1892
(See vol. 32: 60-62)

(1) By Y. I. Starobogatov (*Leningrad, USSR*)

Having seen the Secretary's "Revised Proposals" (*Bull.* 32 : 60-62), I must disagree completely with the part concerning the identity of *Cyclas cornea* Lamarck, 1799 with *Tellina cornea* Linnaeus, 1758. Analysis of all Lamarck's descriptions of both *Cyclas* and *Cyclas cornea* proves that his and Linnaeus's species are not conspecific

(just as Lamarck's *Cyclas obtusalis* is neither conspecific nor congeneric with *Cyclas obtusalis* of authors—see Delessert's figure of Lamarck's specimen, 1841, *Recueil des coquilles décrites par Lamarck dans son histoire naturelle des animaux sans vertèbres et non encore figurées*, Paris, pl. 7, fig. 2).

2. One of the diagnostic features of *Cyclas* in all Lamarck's work is "ligament extérieur" although neither this feature nor the habitat was mentioned when the genus was first proposed in 1799. This is true for *S. rivicola* and partly for *S. scaldianum*, but is not true for *Tellina cornea* Linnaeus. The last species has almost the same ligament as *Loripes lucinalis* (= *Amphidesma lucinalis* Lamarck). Lamarck (1818) wrote in the diagnosis of *Amphidesma* "ligament double un externe court un autre interne". He discriminated precisely between the different forms of ligament: external (*Cyrena*, *Cyprina*, *Venus*, etc.); internal (*Mya*, *Lutraria*, *Mactra*, etc.); external, sunk (*Chama*); external, marginal (*Iridina*, *Tridacna*); marginal, subinternal (*Mytilus*); half internal (*Ostrea*), and could not have confused the form in *S. rivicola* with that in *S. cornueum*.

3. Lamarck described the habitat of his *Cyclas cornaea* (*Anim. s. vert.* 5 : 558) as "les petites rivières, les ruisseaux de l'Europe". Linnaeus gave as the habitat of his *Tellina cornea* (1758: 678) "in Europae paludibus, stagnis". *Sphaerium cornereum* never lives in small rivers and streams but only in ponds, ditches and small lakes with muddy bottoms. On the other hand, *S. rivicola* and *S. scaldianum* are common in rivers and streams.

4. E. Crouch (1826, *An illustrated introduction to Lamarck's Conchology*, London, pl. 6, fig. 8a, b) depicted *Sphaerium rivicola* under the name *Cyclas cornaea*, with a note "Tellina cornea—Linn.". All pictures of *Cyclas cornaea* connected directly or indirectly with Lamarck's descriptions from 1800 to 1841 depict either *Sphaerium rivicola* or *S. scaldianum*.

5. To sum up I may say that Lamarck's *Cyclas cornaea* and Linnaeus's *Tellina cornaea* are not conspecific in spite of many citations of Linnaeus's work. They are congeneric only for those authors who accept the genus *Sphaerium* in a very wide sense, to include both species with a protruded external ligament and species with a marginal sunk ligament. By ruling that the type-species of *Cyclas* is *Cyclas rivicola* Lamarck, the Commission will solve another difficult nomenclatural problem, because *Sphaeriastrum* auctt. non Bourguignat, 1854, generally used for *Sphaerium rivicola*, would then be a junior synonym of *Cyclas*.

6. I therefore insist on my former proposals and ask the Commission:

- (1) to use its plenary powers to suppress all designations of type-species hitherto made for the nominal genus *Cyclas* Lamarck, [1798] and, having done so, to designate *Cyclas rivicola* Lamarck, 1818 as type-species of that genus;
- (2) to place the following generic names on the Official List of Generic Names in Zoology:
 - (a) *Sphaerius* Walzl, 1838 (gender: masculine), type-species, by monotypy, *Sphaerius acaroides* Walzl, 1838;
 - (b) *Cyclas* Lamarck, [1798] (gender: feminine), type-species, by designation under the plenary powers in (1) above, *Cyclas rivicola* Lamarck, 1818;
- (3) to place the following specific names on the Official List of Specific Names in Zoology:
 - (a) *acaroides* Walzl, 1838 (specific name of type-species of *Sphaerius* Walzl, 1838);
 - (b) *rivicola* Lamarck, 1818 (specific name of type-species of *Cyclas* Lamarck, [1798]);
- (4) to place the following Family-Group Names on the Official List of Family-Group Names in Zoology:
 - (a) SPHAERIIDAE Erichson, 1845 (type-genus *Sphaerius* Walzl, 1838);
 - (b) CYCLADIDAE Rafinesque, 1820 (type-genus *Cyclas* Lamarck, 1818);

(5) to place the following Family-Group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

- (a) SPHAERIIDAE Jeffreys, 1862 (a junior homonym of SPHAERIIDAE Erichson, 1845);
- (b) Cycladia Rafinesque, 1820, (an incorrect original spelling of CYCLADIDAE).

(2) By the Secretary, International Commission

There is no escape from the fact that, under the Code, *Cyclas cornea* (Linnaeus) of Lamarck, 1799 and 1818 is the same nominal species as *Tellina cornea* Linnaeus, 1758. Moreover, it seems difficult to avoid the conclusion that Lamarck acted in this sense. There is not only the evidence cited in my application (*Bull.* 32 : 60–62), but also the fact that, when describing *C. cornea* in 1818 (*Anim. s. vert.* 5 : 558) he said: "Les espèces de ce genre sont assez nombreuses, distinctes, et cependant difficiles à caractériser. C'est avec l'une d'elles que Linné a formé son *Tellina cornea*". He then distinguishes between the Linnean species *sensu stricto*, and the Linnean species as misidentified by Draparnaud, which he calls *Cyclas rivicola*.

2. *Sphaerium corneum* is not confined to stagnant waters in Britain. It also inhabits slowly moving waters—in fact, any clean water over a muddy bottom—but not fast-flowing water or any water over sandy or gravelly bottoms.

3. Dr. Starobogatov does not say to which genus he would refer the true *Tellina cornea* Linnaeus, 1758. It thus seems that *Sphaerium* remains a valid genus for him; and so long as the name remains available, the need to remove the homonymy at family-group level also remains.

4. It seems that *Cyclas* has not been used as a valid name, at least in the British literature, for at least 80 years. Specialists in this group of Mollusca are therefore urgently asked to study this case carefully and to send their considered views on it to the Commission.

(3) By Maciej Mroczkowski (*Institute of Zoology, Polish Academy of Sciences, Warsaw*)

I agree generally with Dr. Clarke's proposals as modified by R. V. Melville. But why should the stem of family-group names based on *Sphaerius* Waltl, 1838 (Coleoptera) be SPHAERIUS-? And why the family-name SPHAERIUSIDAE?

If we treat the noun *Sphaerius* as belonging to the second or fourth declension, the family-name will be SPHAERIIDAE in all cases. But if we treat *Sphaerius* as belonging to the third declension, we have:

- (a) if *Sphaerius* is masculine, the genitive singular will be sphaerurius and the family-name SPHAERIURIDAE;
- (b) if *Sphaerius* is feminine, the genitive singular will be sphaerutiis and the family-name SPHAERIUTIDAE;
- (c) if *Sphaerius* is neuter, the genitive singular will be sphaeruiis and the family-name SPHAERIUIDAE.

Sphaerius Waltl, 1838 is, of course, masculine. I therefore propose the following modification of the proposals:

- (1) to rule under the plenary powers that *Sphaerius* Waltl, 1838 (Coleoptera) belongs to the third declension and that its stem for the purposes of zoological nomenclature is SPHAERIUR-;
- and in (2) (b) and (6) replace SPHAERIUSIDAE by SPHAERIURIDAE.

(4) By Hans Reichardt (*Universidade de Sao Paulo, Caixa Postal 7172, Sao Paulo, Brazil*)

The proposal of SPHAERIUSIDAE for the beetle family may be a good solution for the case, but I think it is not the best one. Besides *Sphaerium* Scopoli, 1777, and *Sphaerius* Waltl, 1838 there are several other similarly spelled names which might cause problems in the future.

I tend to agree with Professor Tortonese's comments (*Bull.* 30 : 60), that is: "But it is better to avoid SPHAERIIDAE in Insecta and re-name the family after a genus other than *Sphaerius* if one exists."

The Coleopteran family SPHAERIIDAE is formed by a single genus, *Sphaerius* Waltl, 1838. In 1846 Kolenati described the same animal under the name *Microsporus* (*Melet. Ent.* 5 : 64). Unfortunately I do not have the facilities for checking who synonymized the two genera, but the synonymy is accepted as correct. More recently Oke (1954, *Proc. roy. Soc. Victoria N.S.* 65 : 57-59) described a genus *Neosphaerius* for two Australian species, but it has been synonymized.

It would perhaps be worthwhile to revalidate *Microsporus* Kolenati, 1846 and name the family of Coleoptera after this genus, MICROSPORIDAE. I have checked the literature and find no homonyms of this name.

(5) By the Secretary, International Commission

The proposal to solve this problem by changing the name of the type-genus of one of the families involved has implications at the generic-name level that ought to be carefully considered. Although analogous suggestions have been made in previous cases of family-name homonymy arising from the similarity of generic names, it is not, so far as I am aware, a solution that the Commission has ever adopted. In the present case, at all events, neither of the valid generic names involved (*Sphaerium*; *Sphaerius*) is defective in any way, so that there is no intrinsic reason for suppressing either of them, as would be necessary if either Dr. Starobogatov's or Dr. Reichardt's suggestion were to be followed. Although Article 79e excludes the citing of precedents on the basis of earlier Opinions, human nature being what it is, it is probable that the adoption of the proposal to change one of the generic names would be used to justify further suggestions on the same lines in later cases of the same kind.

In my view, there is no justification in this case for the implied disturbance of stability in generic names. From my small knowledge of the Mollusca, I do not expect the proposal to replace *Sphaerium* by *Cylas* to be generally welcomed by malacologists. It is to be hoped that coleopterists will let the Commission have their views on the proposal to replace *Sphaerius* by *Microsporus*.

COMMENTS ON THE PROPOSAL TO VALIDATE *CARDIUM CALIFORNIENSE* DESHAYES, 1839. Z.N.(S.) 2073
(See vol. 31: 238)

(1) By Ernst Mayr (*Museum of Comparative Zoology, Cambridge, Mass. 02138, U.S.A.*)

Suppressing *Cardium boreale* Broderip & Sowerby, 1829 only for the purposes of the Law of Priority might cause difficulties because it would still leave *C. boreale* Reeve, 1845 invalid as a junior primary homonym. I think it would be good if the status of Reeve's name could be explained in the application. Is it the intention of the applicant that *boreale* Reeve should remain invalid by not suppressing *boreale* Broderip & Sowerby for the purposes of the Law of Homonymy?

(2) By the Secretary, International Commission

On receiving Dr. Mayr's comment on this case, I first consulted Miss Solene Whybrow (*British Museum, Natural History*). She has assured me, first, that no specimen that could be considered undoubtedly the type of *C. boreale* Broderip & Sowerby can be found at the Museum; and, secondly, that the name has not been used as a valid name within the last fifty years. I then wrote to Dr. Kafanov (the applicant), and he made it clear that it is not his intention that *C. boreale* Reeve should remain invalid.

Accordingly, proposal (1) in para. 5 on p. 239 of *Bull. 31* should be altered to read:

to use its plenary powers to suppress the specific name *boreale* Broderip & Sowerby, 1829, as published in the binomen *Cardium boreale*, for the purposes of both the Law of Priority and the Law of Homonymy.